From: Carr, Brian
To: Tsiamis, Christos
Subject: LTCP
Date: Friday, January 29, 2016 11:56:00 AM
Attachments: LTCP_page 8 15.pdf

Because DEP asserts that the canal is almost fully attaining pathogen standards, disinfection methods were screened out for outfalls (see the attached excerpt), and were not evaluated as part of the tank options retained. The head house arguably only has future space, not the actual works, but their report makes clear that the tanks will capture more events but that background conditions from the East River will never allow full attainment. In sum, disinfection is not a viable future or present option.

At page SD-48:

LTCP Recommendations

Existing WQS are being met as a result of DEP's refurbishment of the Flushing Tunnel and upgrade of the Gowanus PS. Water quality will improve still further with the build-out of planned GI and construction of the planned high level storm sewers (HLSS), as part of the LTCP baseline. The LTCP evaluated alternatives to further reduce CSO loadings to the Gowanus Canal beyond baseline conditions and determined that additional control measures would have little or no impact on projected water quality criteria for primary contact recreation, as the Gowanus Canal meets WQS for the Primary Contact WQ Criteria and the Potential Future Primary Contact WQ Criteria, with the exception of the STV criterion of the Potential Future Primary Contact WQ Criteria (110 cfu/100mL).

At page SD-52, regarding improvements from the ROD with 3 possible tank sizes:

The water quality benefits achieved with Alternatives 1, 2 and 3 include reductions in CSO discharges to the Gowanus Canal. However, the 10-year water quality model runs do not show an appreciable elevation in WQS attainment. In all instances, the primary benefit will be fewer overflows to the Gowanus Canal and a greater removal of floatables.

From LTCP at 8-5 to 6:

5. Establishing the preferred alternative from the steps above.

Unique to the Gowanus Canal LTCP, there were also a number of coordination meetings with EPA concerning the Gowanus Canal Superfund program. During these meetings, these two independent legal mandates (CWA and Superfund) were discussed with respect to their possible overlap of purpose and/or points of coordination. The range of CSO control measures that were considered for this and other LTCPs fall under the categories of Source Control, System Optimization, CSO Relocation, Water Quality/Ecological Enhancement, Treatment, and Storage, with the following constituents:

Source Control
- Additional GI Infrastructure
- HLSS

System Optimization
- Fixed Weir Modifications
- Parallel Interceptor Sewer
- Inflatable Dams, Bending Weirs and Control Gates
- PS Expansion

CSO Relocation
- Gravity Flow Tipping to Other Watersheds
- Pump Station Modifications

Flow Tipping with Conduit/Tunnels and Pumping

Water Quality/Ecological Enhancement
- Floatables Control
- Dredging
- DO Improvement
- Flushing Tunnel

Treatment
- Outfall Disinfection
- Retention Treatment Basin (RTB)
- High Rate Clarification (HRC)

Storage
- In-System
- Shaft
- Tank
- Tunnel

Figure 8-1 presents these control measures according to their relative cost and level of complexity. The control measures in the upper left hand corner are generally the least costly and least complex to construct and/or operate, while those towards the lower right are the most costly and most complex to construct and/or operate. The level of loads removal performance of each measure typically corresponds with the level of cost and complexity.

The vast majority of the control measures shown above were screened-out early in the evaluation process upon the results of the performance gap from Section 6.0, analysis of the collection system and compatibility with the available sites. Unique to this LTCP, the EPA Superfund evaluations also informed the evaluation process. For example, the Superfund evaluations focused primarily on storage tanks due to their ability to reduce TSS loadings to the Gowanus Canal, a priority for the CSO-related portion of the Superfund ROD for this site. Thus, to provide consistency in both sets of evaluations, storage tanks were evaluated here as well.

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